

FORCE-BALANCED ROLLER-CONE BITS,
SYSTEMS, DRILLING METHODS, AND
DESIGN METHODS

Inventor: Shilin Chen
Date Filed: January 27, 2004
Attorney's Docket: 074263.0209 (SC-98-025 C3-E)
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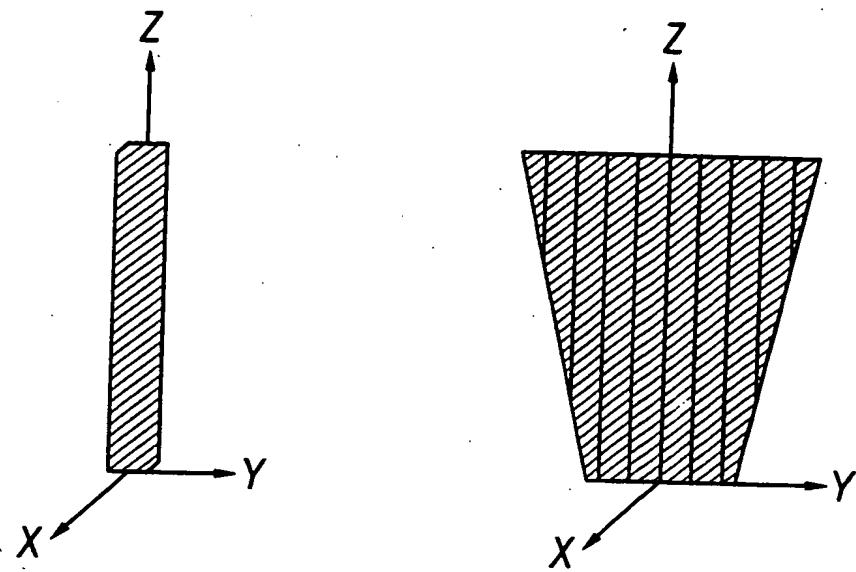


FIG. 1

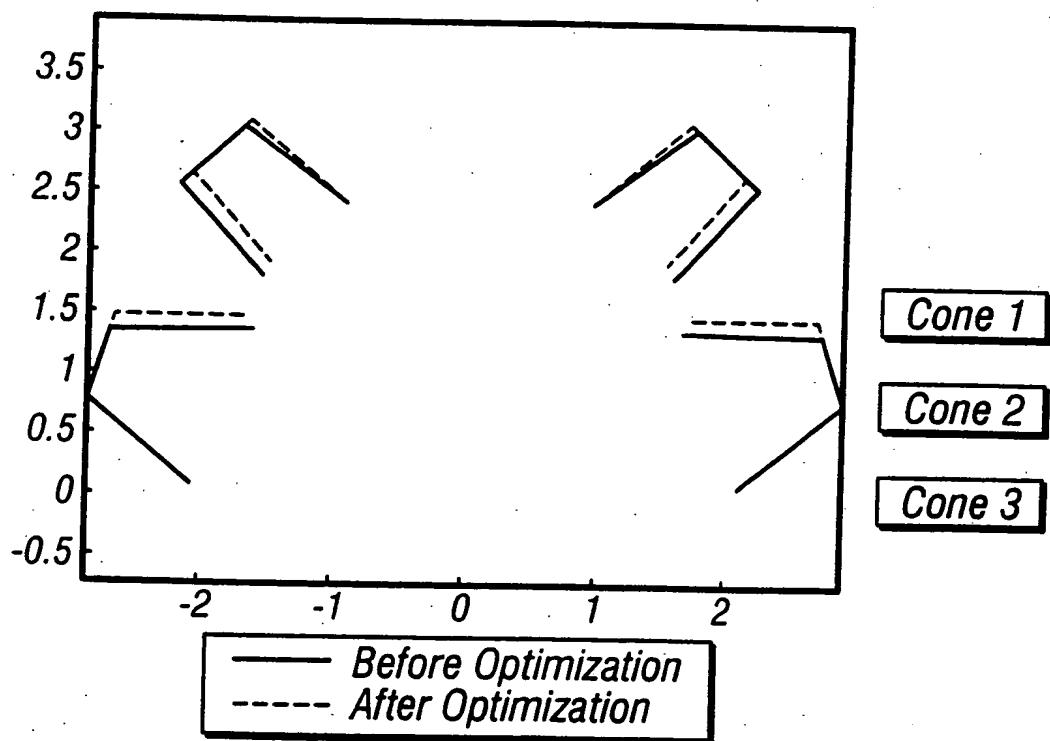


FIG. 7C

FORCE-BALANCED ROLLER-CONE BITS,
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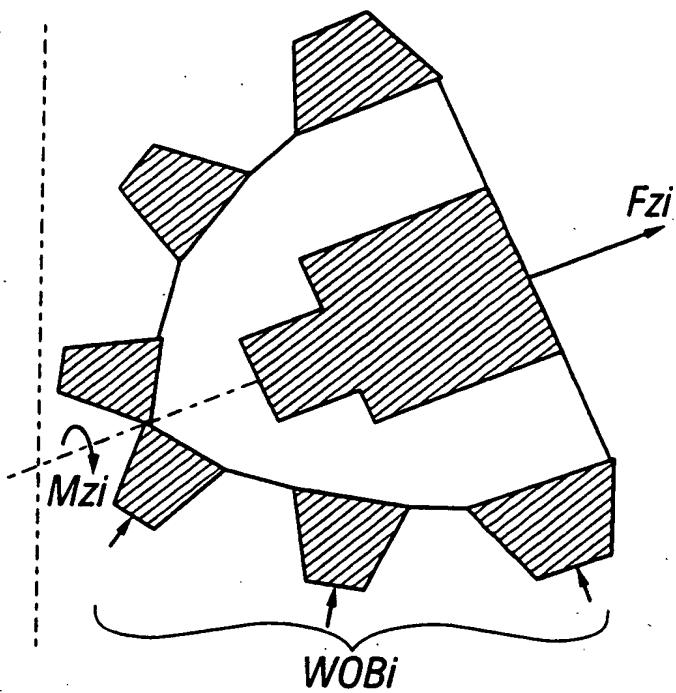


FIG. 2

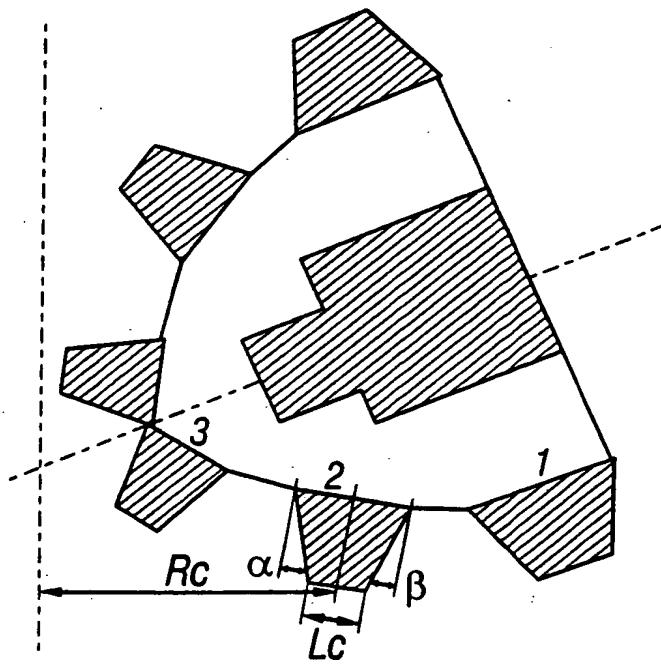


FIG. 3

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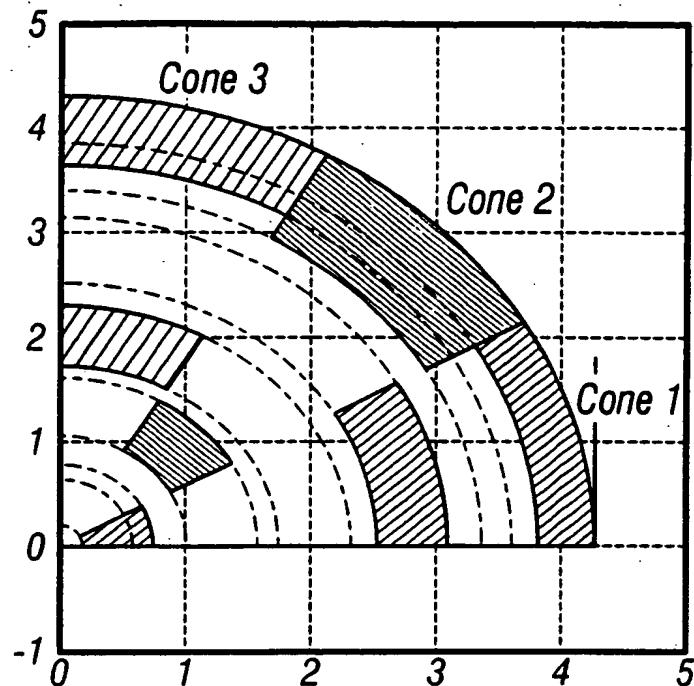


FIG. 4

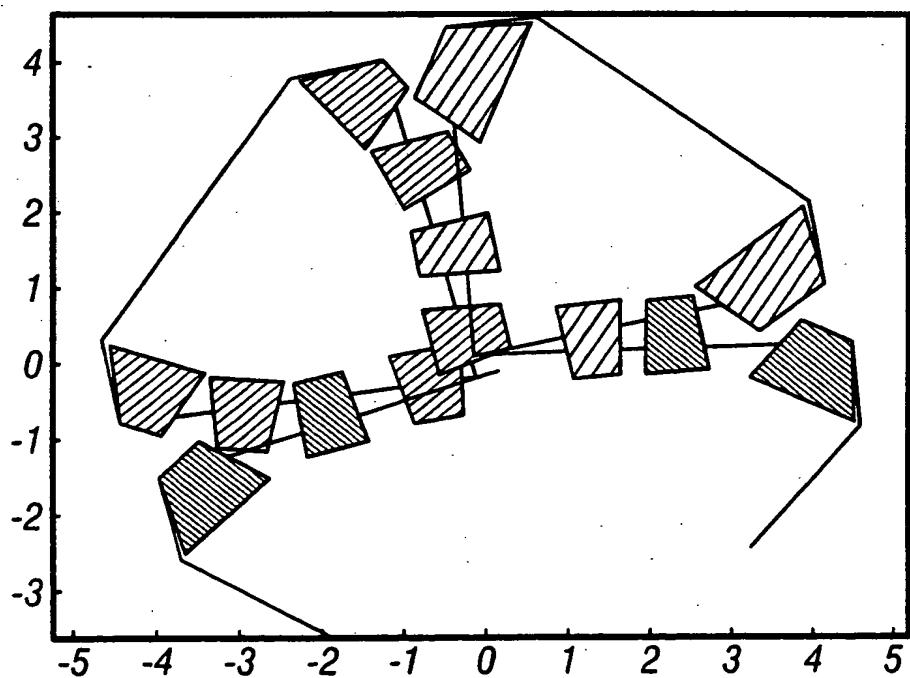


FIG. 5

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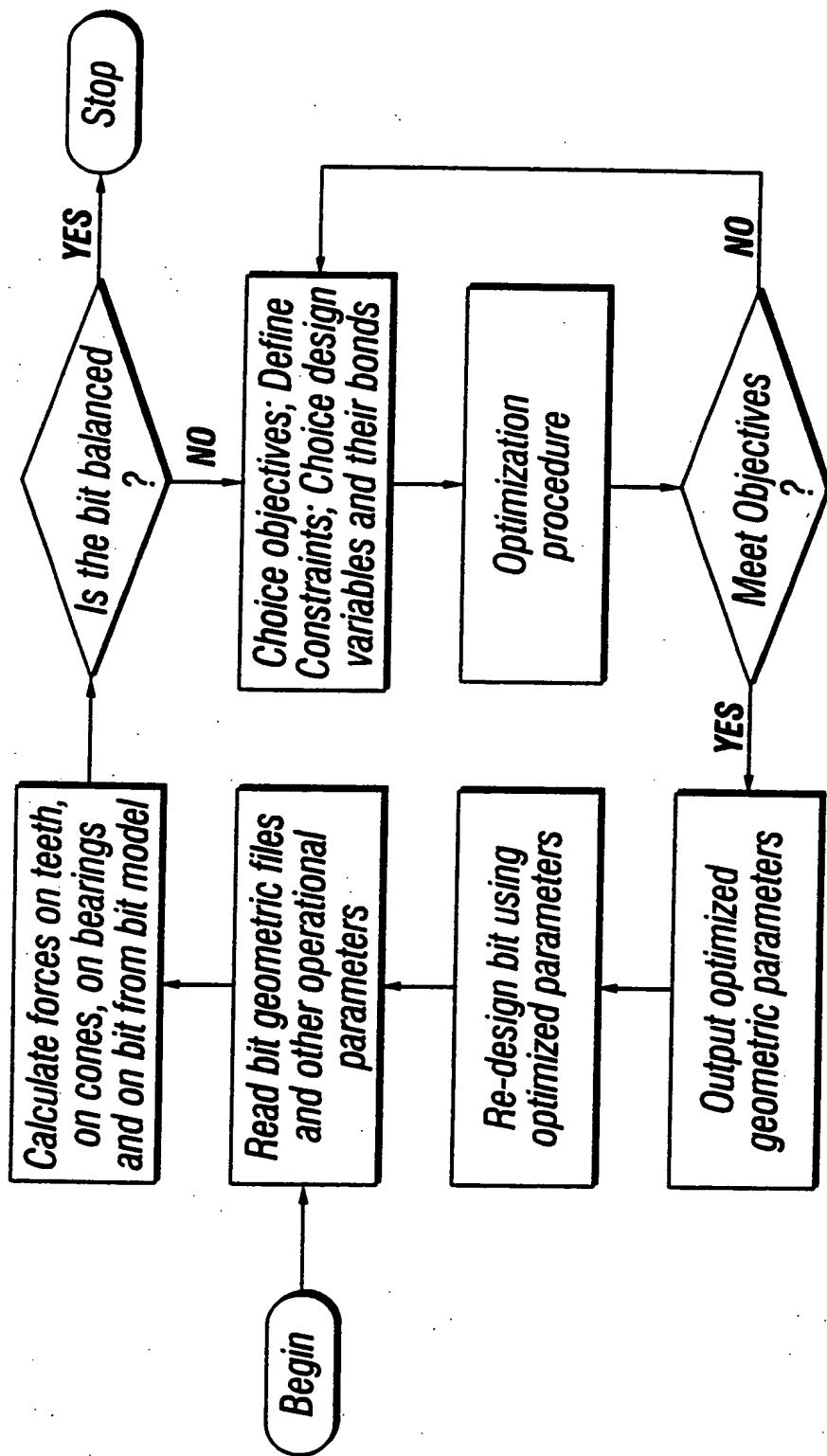


FIG. 6

FORCE-BALANCED ROLLER-CONE BITS,
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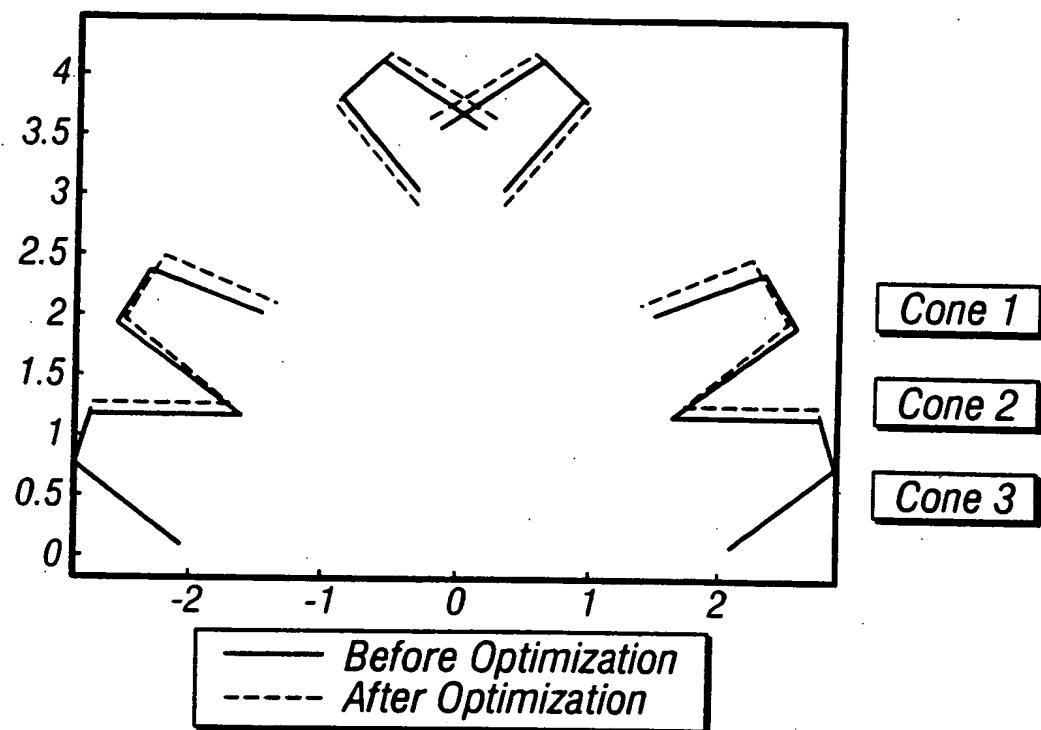


FIG. 7A

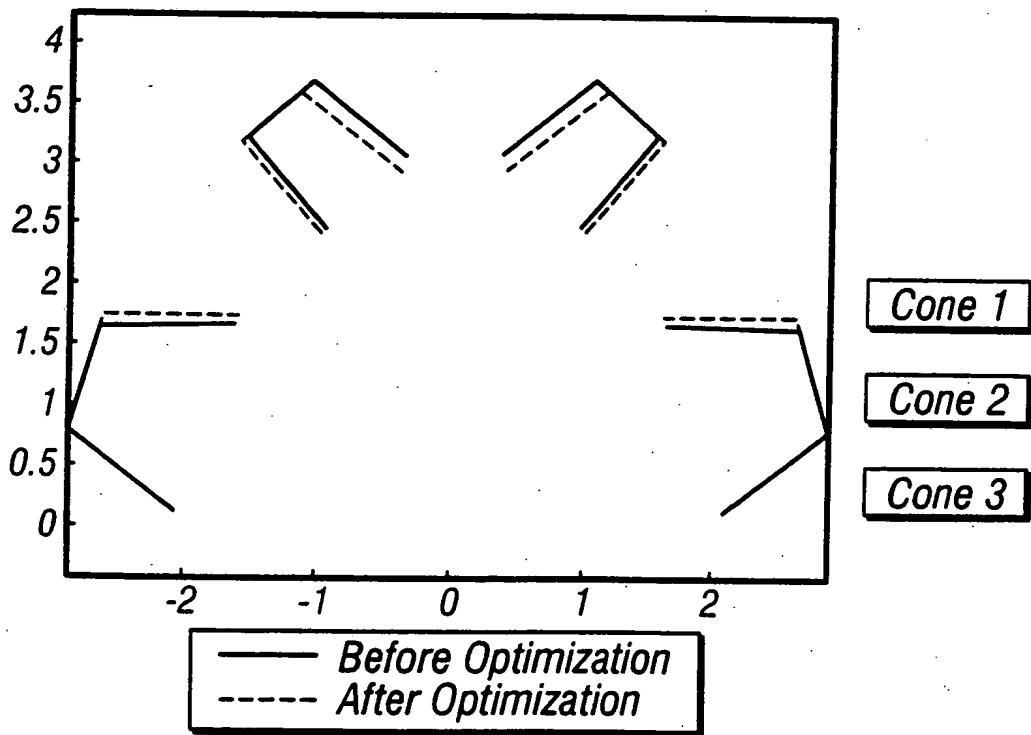


FIG. 7B

FORCE-BALANCED ROLLER-CONE BITS,
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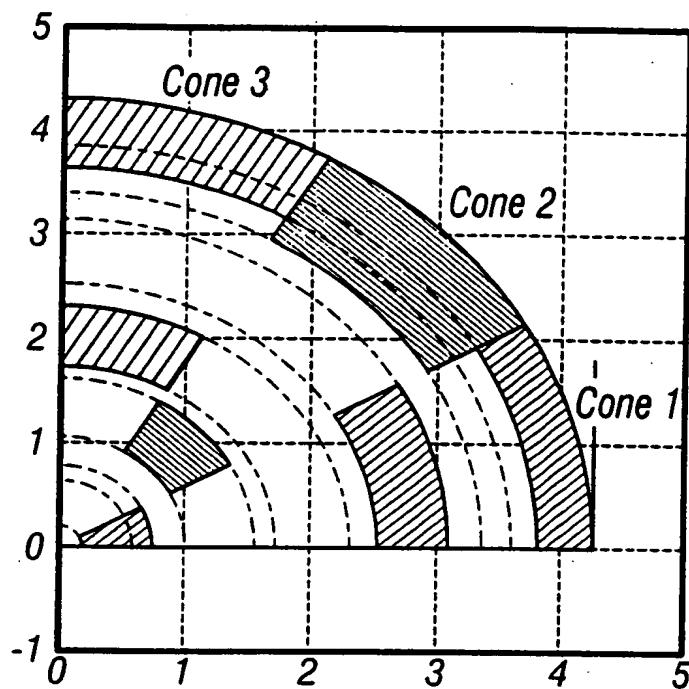


FIG. 8A

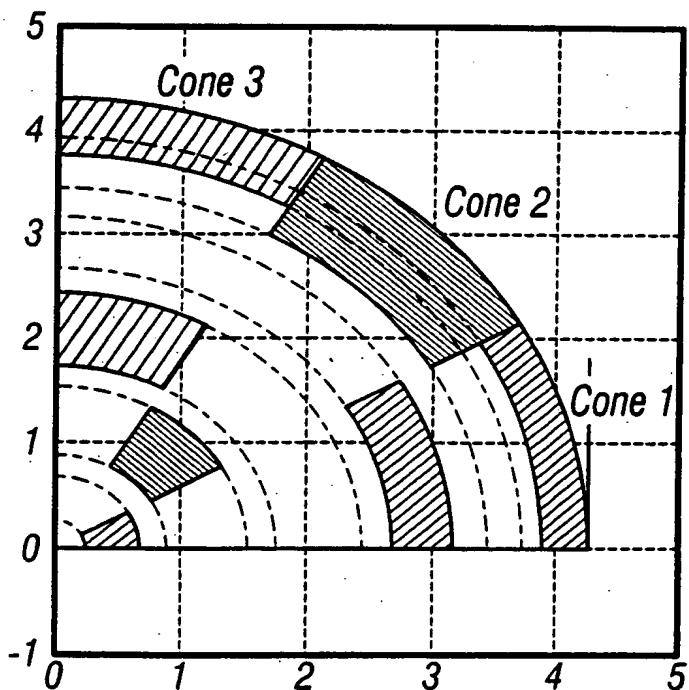


FIG. 8B

FORCE-BALANCED ROLLER-CONE BITS,
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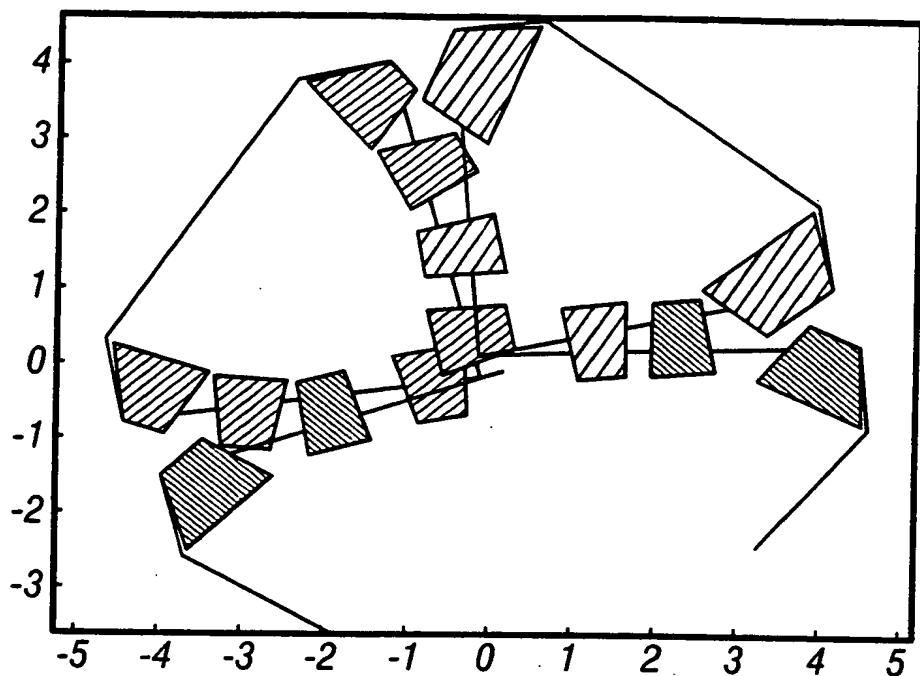


FIG. 9A

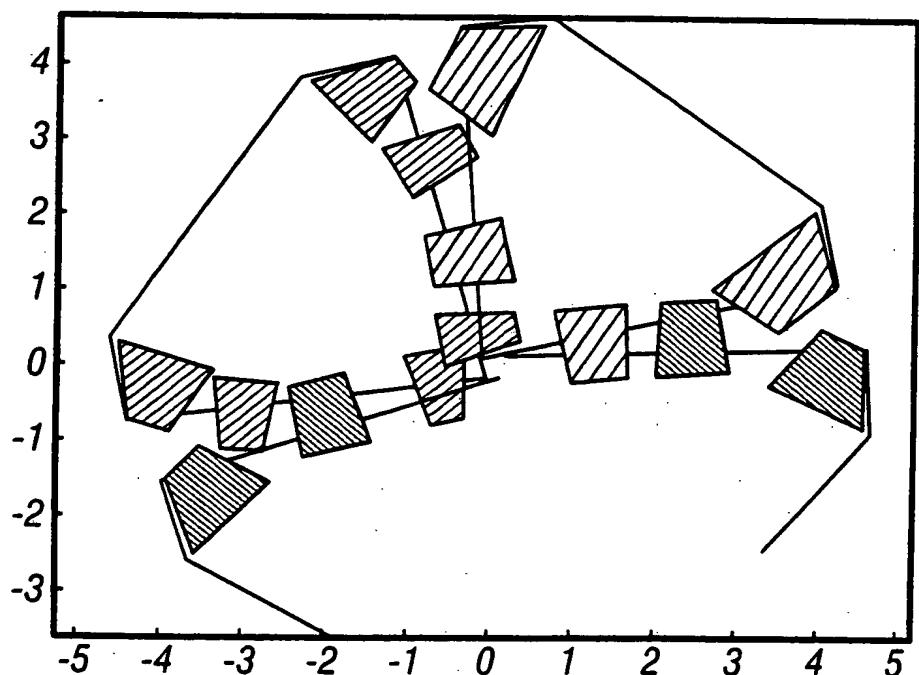


FIG. 9B

FORCE-BALANCED ROLLER-CONE BITS,
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